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Clinical Characteristics and Outcomes of Patients Undergoing Transcatheter Aortic Valve Replacement with STS PROM of $\leq 3\%$

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INTRODUCTION

- Transcatheter aortic valve replacement (TAVR) has evolved as the preferred treatment option for patients with severe aortic stenosis deemed at intermediate or higher risk for surgical aortic valve replacement (SAVR).
- Although risk for SAVR is predominately determined by the Society for Thoracic Surgery (STS) predicted risk of mortality (PROM), Federal regulations permit local heart team latitude in offering TAVR to patients with $\leq 3\%$ PROM if risk for SAVR is not accurately reflected by the STS risk calculator.
- We aimed to identify the clinical factors that influenced the local heart teams to recommend TAVR in patients with $\leq 3\%$ PROM and to compare their clinical characteristics and outcomes to TAVR patients with $>3\%$ PROM

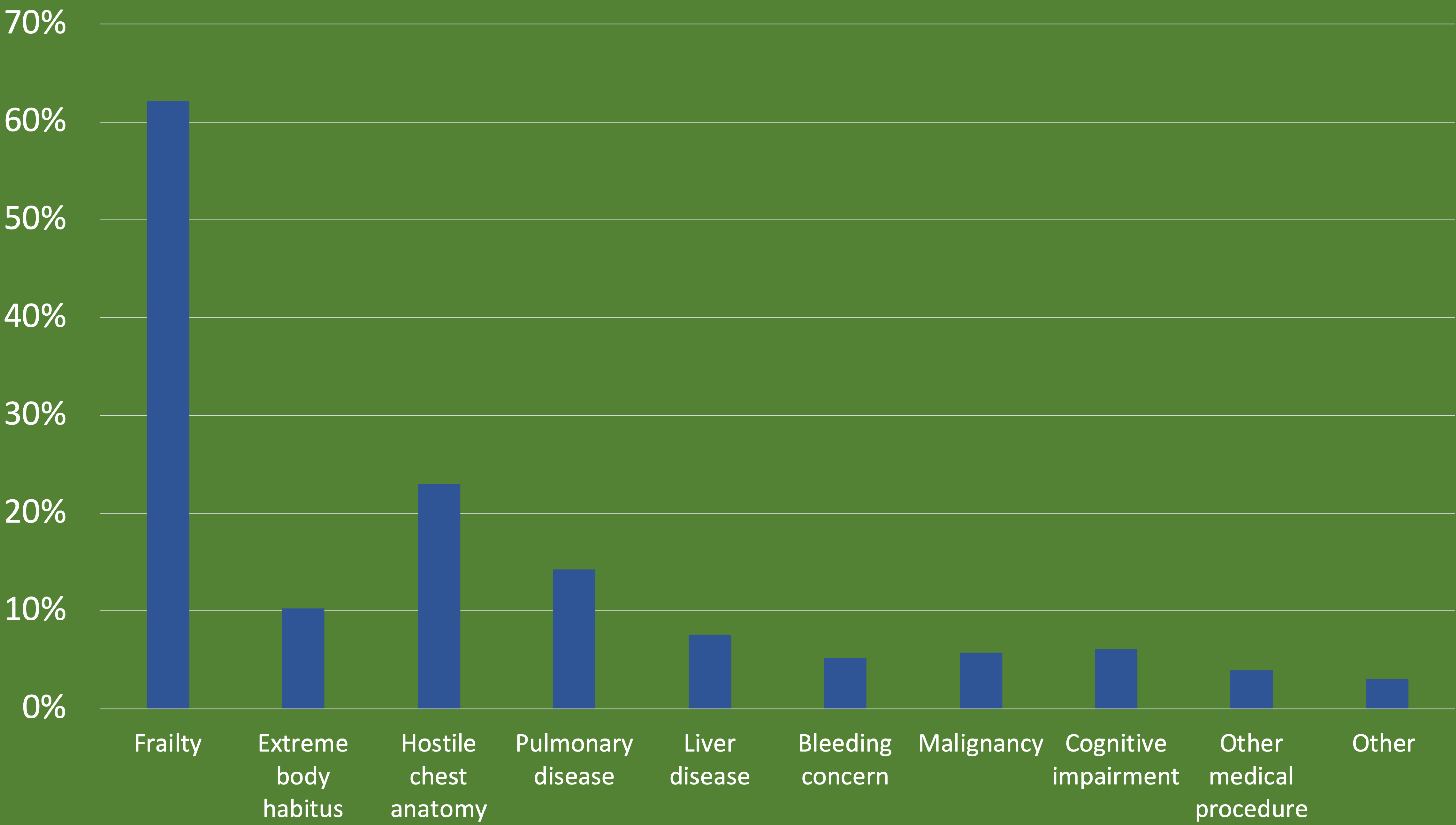
METHODS

- Patients (n=2,539) who underwent TAVR from 2013-2017 were retrospectively identified within 8 hospitals in 5 Western States in the Providence St. Joseph Health system.
- Clinical data was collected as per the STS ACC TVT Registry.
- Local TAVR coordinators completed surveys identifying the specific clinical factors that led the heart team to advise TAVR in patients with $>3\%$ PROM.

RESULTS

- 332 TAVR patients with $>3\%$ PROM

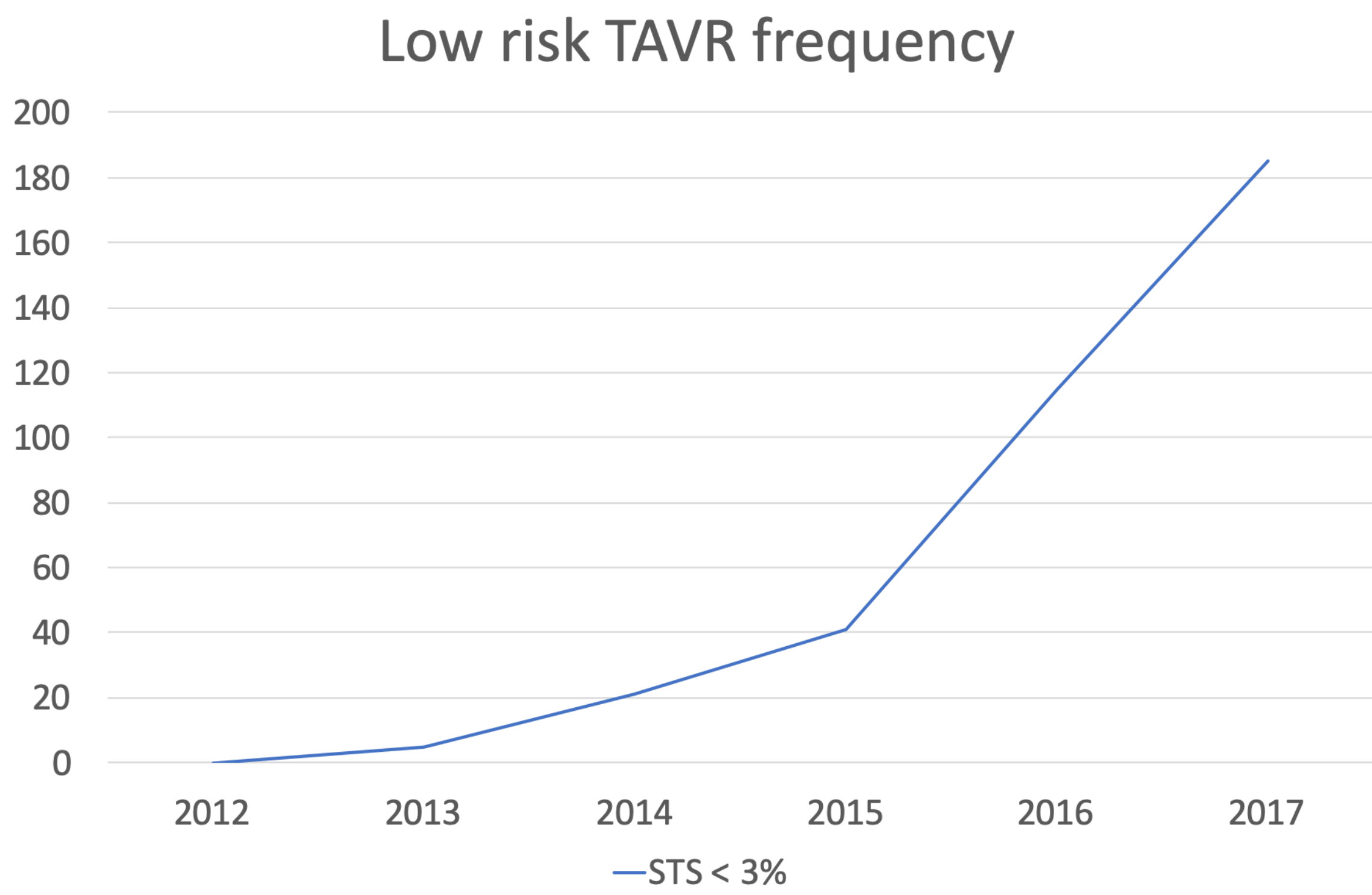
Clinical Factors Leading to TAVR in Patients with $< 3\%$ PROM



Frailty, hostile chest, and severe lung disease were the most common reasons to recommend TAVR in patients with $\leq 3.0\%$ PROM

Patient Characteristics		
	$\leq 3\%$ STS PROM (n= 332)	$>3\%$ STS PROM (n= 2207)
Mean Age, years \pm sd	73.9 \pm 8.6	82 \pm 8.4
Male	69.6%	51.2%
STS PROM (%) \pm sd	2.3 \pm 0.5	7.1 \pm 3.8

Clinical outcomes		
	$\leq 3\%$ STS PROM (n= 332)	$>3\%$ STS PROM (n= 2207)
pLOS mean days \pm sd	2.5 \pm 3.7	3.2 \pm 3.6
In-hospital mortality	0.9%	2.4%
One year mortality % (95% CI)	7.5 (5.0, 11.2)	12.5 (11.1, 14.0)



CONCLUSION

- Over the study period, the proportion of TAVR patients with STS PROM $\leq 3\%$ tripled.
- The most common reason driving the decision for TAVR over SAVR in the $\leq 3\%$ PROM group was frailty, hostile chest, and severe lung disease
- $\leq 3\%$ PROM TAVR patients had shorter hospital stays and were more likely to be alive at 1 year

DISCLOSURES

auDr. Ring is a proctor for Medtronic and a consultant for Boston Scientific
The remaining thors have no disclosures